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**United States Patent** [19]

Fraser et al.

[11] Patent Number: **5,905,974**[45] Date of Patent: **May 18, 1999**[54] **AUTOMATED AUCTION PROTOCOL PROCESSOR**[75] Inventors: **Stuart A. Fraser, Armonk; Howard Lutnick, New York, both of N.Y.; Bijoy Paul, North Brunswick, N.J.**[73] Assignee: **Cantor Fitzgerald Securities, New York, N.Y.**[21] Appl. No.: **08/766,733**[22] Filed: **Dec. 13, 1996**[51] Int. Cl.<sup>6</sup> ..... **G06F 17/60; G06F 17/00; G06F 19/00**[52] U.S. Cl. .... **705/37; 705/35; 705/36**[58] Field of Search ..... **705/35, 36, 37**[56] **References Cited****U.S. PATENT DOCUMENTS**

2,134,118	10/1938	Foss	705/36
3,573,747	4/1971	Adams et al.	705/37
3,581,072	5/1971	Nymeyer	705/37
4,412,287	10/1983	Braddock, III	705/37
4,674,044	6/1987	Kalmus et al.	705/37
4,677,552	6/1987	Sibley, Jr.	705/37
4,823,265	4/1989	Nelson	705/35

4,903,201	2/1990	Wagner	705/37
4,980,826	12/1990	Wagner	705/37
5,101,353	3/1992	Lupien et al.	705/37
5,136,501	8/1992	Silverman et al.	705/37
5,168,446	12/1992	Wiseman	705/37
5,297,031	3/1994	Guterman et al.	705/37
5,710,889	1/1998	Clark et al.	345/344
5,727,165	3/1998	Ordish et al.	705/37

*Primary Examiner*—Allen R. MacDonald*Assistant Examiner*—James W. Myhre*Attorney, Agent, or Firm*—Hopgood, Calimafde, Kalil & Judlowe LLP[57] **ABSTRACT**

A data processing system for implementing transaction management of auction-based trading for specialized items such as fixed income instruments. The data processing system provides a highly structured trading protocol implemented through a sequence of trading paradigms. The system employs a distributed computer processing network linking together a plurality of commonly programmed controlled workstations. The protocol and its programmed controlling logic enhances trading efficiency, rewards market makers and fairly distributes market opportunity to system users.

**30 Claims, 12 Drawing Sheets**